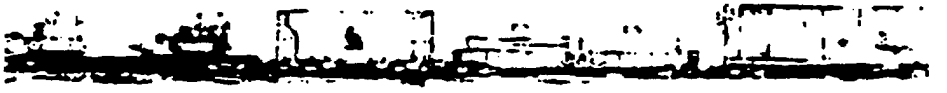
Appendix II

GLOSSARY



Airbrakes--braking system employing air under pressure to operate and force the brakeshoes against the wheels.

Axle--cylindrical shaft of wrought iron or steel on which wheels are mounted; holds the wheels to gage and transmits the load from journal boxes to wheels.

Body (of car)--main or principal part in or on which the car's load is placed.

Body bolster--transverse member of the underframe over the trucks through which the weight carried by the longitudinal sills is transmitted to the trucks. Resting on the truck bolster, the body bolster carries and transmits its load through the mated body and truck center plates.

Body center plate--plate made of cast or malleable iron or pressed or cast steel attached to the underside of the body bolster, or in cast steel bolsters an integral part of the casting. With the truck center plate, it supports a car body on the trucks.

Body post (freight car bodies)--upright piece fastened to the side sill and plate of a freight car. Body posts and corner posts form the vertical members of the side frame of a car body.

Body side bearing--upper one of the two side bearings; is attached to the body bolster.

Center sill--central longitudinal member of the underframe of a car; forms the backbone of the underframe.

Classification, locomotive--See Whyte Classification System.

Compression ignition--ignition of a fuel charge by heat generated when air is compressed in the cylinder.

Coupler--device that connects cars to cars, or locomotives to cars.

Cylinder--cylindrical part of an engine in which the piston moves.

Direct current--electric power system in which the electric current flows continuously in the same direction.

Dome--See Tank dome.

Dome cover--closure for the top of a tank car dome.

Driving axle--axle on which two coupled driving wheels are mounted.

Driving Wheels--all wheels under a diesel-electric locomotive that transmit power from the traction motor driven axle to the rail.

End sill--transverse member of a car's underframe that extends across the ends of all the longitudinal sills.

Gage of track--distance between the two parallel rails. Standard gage, the most commonly used gage in the United States, is 56 1/2 inches. Broad gages include measurements of 60, 63, and 66 inches; and narrow gages include 36, 39 3/8, and 42 inches.

Generator--apparatus that transforms mechanical energy into electrical energy.

Ice bunker--receptacle or compartment in refrigerator car in which ice is placed.

Load limit (in car)--weight of load in a car which when added to the light weight of the car gives the maximum AAR axle loading.

Load limit (on rail)--the combined light weight of a car and the load weight which give the maximum AAR axle loading.

Locomotive--self-propelled vehicle that runs on rails and generates energy and converts it into force or effort for the purpose of hauling cars.

Locomotive classification--See Whyte Classification System.

Piston--metal disk with packing that works back and forth in a cylinder and transmits the force exerted upon its crown (top of the piston) to the connecting rod and working parts of an engine.

Roof handhold--iron bar bent to a required shape and fastened to the roof to be grasped when ascending the ladder at the end of a boxcar or a refrigerator car.

Running board--plane surface, made of boards or a special metal structure on which trainmen may walk, located on the roof of a caboose; stock, refrigerator, and covered hopper cars; and boxcars; and at the sides of tank cars.

Safety valve--valve attached to the dome of a tank car to prevent excess pressure from vapors arising from volatile liquids.

Sheathing--covering around the sides and ends of a house car.

Side bearings--bearings attached to the bolsters of a car body or truck on each side of the center plate to steady the car and prevent excessive rocking.

Side frame--frame that forms the side of a car body or a truck.

Side sills--outside longitudinal members of the underframe.

Superstructure--that part of a car above the underframe and floor; commonly divided into sides, ends, and roof.

Tank dome--vertical cylinder attached to the top of a tank car that permits the tank proper to be filled to full cubic capacity which would be impossible without a dome.

Traction motor--electric motor that drives an individual axle of a diesel-electric locomotive.

Tractive effort--horizontal force at the rails that the locomotive driving wheels can exert provided they do not slip.

Truck--assembly of parts that support a locomotive or a car body at each end and provide for the attachment of wheels and axles.

Truck bolster--crossmember in the center of a truck on which a car body rests that is connected to a body bolster by a center pin that passes through both bolsters.

Truck center plate--plate made of cast or malleable iron or pressed or cast steel attached to the top side of, or cast integral with, the truck bolster. With the body center plate, it serves to support a car body on the trucks.

Underframe--framework that receives buffing and pulling stresses and carries the weight of the floor and body of a vehicle.

Whyte Classification System--system in which locomotives are classified according to wheel arrangement; developed by F. M. Whyte and used extensively throughout the United States to classify locomotives.